

REMARKS

Independent claims 1 and 140 have been canceled, replaced by claims 144 and 145, respectively. Claims 2-4, 6, 7, 11, 13-18, 20, 24, 26, 27, 32, 36, 38, 40, 41, 141 and 143 have been amended, but claims 8-10, 12, 19, 21-23, 25, 28-31, 33-35, 37 and 39 remain unchanged. Claims 5 and 142 were previously canceled, and claims 42-139 were previously withdrawn. The dependent claims have also been amended to accommodate the changes in dependency and to better comport with the new independent claims. No new matter has been added to the application by this *Amendment And Response*. In view of the amendments above and the arguments below, Applicants believe that the claims set forth below are patentable over the prior art of record.

More specifically, as part of a *Request for Continued Examination* (RCE), Applicants have herein deleted independent claims 1 and 140, which are the only two independent claims pending in the present application. They have been superseded by new independent claims 144 and 145, respectively. Be advised, however, that each new independent claim is actually a revision of a claim presented earlier in prosecution. (See, e.g., claims 1 and 140 as filed with the original application). New limitations have been added herein via claims 144 and 145, however, to assure patentability over the prior art of record. For example, in claim 144, the new limitations include the italicized portions of the following recitation: “a bubble generator to form the medium by creating bubbles of gas within the liquid *during the medical procedure as the liquid is being conveyed through said bubble generator*, said bubble generator having an inlet for receiving the liquid and an outlet for conveying the medium to the patient *during the medical procedure....*” Similar language has been added to claim 145.

Support for these limitations can be found in the original specification at multiple locations. Specifically, with reference to the published application (i.e., U.S. Patent Application Publication 2004/0253183), paragraph [0022] states that another objective of the invention is to “provide an

apparatus that creates microbubbles on demand within a medium, which is intended for contemporaneous injection into a patient...." (emphasis added) After disclosure of all of the various microbubble generator embodiments in previous paragraphs, paragraph [0132] states that the "microbubble generators disclosed herein also have application beyond immediate injection into the patient." Likewise, paragraph [0051] states that "Fig. 2A illustrates ... a system ... for creating microbubbles on demand for use within a medium administrable to a patient undergoing an imaging procedure. * * * [T]he system 1 enables its pump 31 to convey liquid from container 30 to the microbubble generator 32 wherein microbubbles are formed on demand within the liquid. Subject to further processing by the controller 33 ... as is explained below, the liquid and the microbubbles it carries is eventually conveyed through tubing to the patient into whom it is injected through the catheter 22, as shown in FIG. 2A." Paragraphs [0002], [0016]-[0021] and [0025]-[0028] also provide support for the claimed limitations. See also original claims 4, 45 and 135. Paragraphs [0054] and [0055] also provide support for the limitations, particularly when read in light of paragraphs [0022] and [0132].

Although various claims have been amended or canceled during prosecution, Applicants wish to point out that such revisions are not meant to be construed as an admission of unpatentability of the subject matter recited in earlier versions of the claims. Instead, such revisions should be considered as having been made only to expedite prosecution of the application. They should not be considered as a surrender of the right to pursue any subject matter disclosed in the present application or in any continuation or divisional application based thereon that may be filed in the future.

Lastly, this *Amendment And Response* is being submitted as a result of a telephonic interview on 12 October 2010 during which the aforementioned amendments were discussed with Examiner Melissa Perreira, Arthur E. (Ned) Uber, III (one of the inventors of record), and the undersigned attorney. Examiner Perreira stated that she would prepare a summary of this interview and place it into

the official record. The parties agreed that the undersigned should call Examiner Perreira within a week or two after submission of this document to obtain an update on the status of the present application.

CONCLUSION

Applicants submit this *Amendment And Response* as part of a *Request for Continued Examination* (RCE). Before entry of this *Amendment And Response*, the present application had forty-three (43) claims pending, two (2) of which independent. Upon entry of this *Amendment And Response*, the number of claims remains unchanged though several have been amended. Earlier in prosecution, ninety eight (98) claims were withdrawn with traverse due to a *Restriction Requirement*.

Given the foregoing amendments and arguments, Applicants respectfully request withdrawal of the rejections set forth in the *Final Office Action* dated 16 June 2010. Applicants believe the application is ready to be allowed. If the Examiner has any questions regarding this *Amendment and Response*, she is invited to call the undersigned at the telephone number listed below.

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Respectfully submitted,


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